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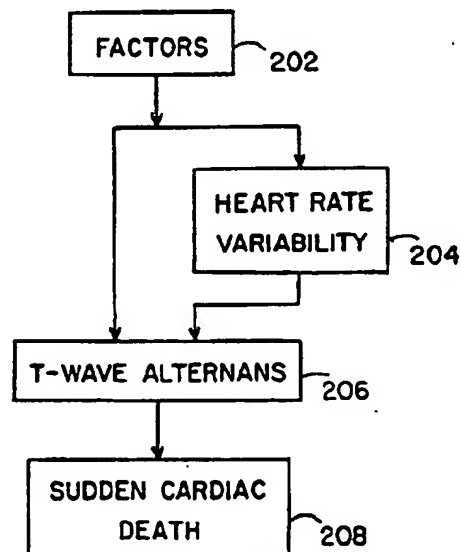
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(21) International Application Number: PCT/US93/08782 (22) International Filing Date: 16 September 1993 (16.09.93)  (30) Priority data: 07/948,529          22 September 1992 (22.09.92) US  (71) Applicant: GEORGETOWN UNIVERSITY [US/US]; 2nd Ryan Administration Building, 37th & O Streets, N.W., Washington, DC 20057 (US).  (72) Inventors: VERRIER, Richard, L. ; 5104 Duvall Drive, Be- thesda, MD 20816 (US). NEARING, Bruce, D. ; P.O. Box 10434, Rockville, MD 20849 (US).  (74) Agents: KESSLER, Edward, J. et al.; Sterne, Kessler, Goldstein & Fox, 1100 New York Avenue, N.W., Suite 600, Washington, DC 20005-3934 (US).	(81) Designated States: AU, CA, JP, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).  Published <i>With international search report.          Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	

(54) Title: CARDIAC VULNERABILITY TRACKING METHOD AND APPARATUS

(57) Abstract

A method and apparatus for the non-invasive, dynamic tracking and diagnosing of cardiac vulnerability to ventricular fibrillation features simultaneous analysis of T-wave alternans (206) and heart rate variability (204). The T-wave alternation is an absolute predictor of cardiac electrical instability. Heart rate variability is a measure of autonomic influence, a major factor in triggering cardiac arrhythmias. By simultaneously analyzing both phenomena (208) the extent and cause of cardiac vulnerability can be assessed.



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